A HOUSING ASSEMBLY HAVING SIMPLIFIED CIRCUIT BOARD ASSEMBLY, RETENTION, AND ELECTRICAL CONNECTION FEATURES

ABSTRACT OF THE DISCLOSURE

An assembly comprising a housing and a circuit board is designed to facilitate a simplified method of assembling the circuit board into the housing, along with a simplified method of coupling the signals on the circuit board to other circuits. The circuit board is guided into place by a pair of slots, with each slot located proximate an end of the housing. The housing includes a support member that has a deflection/retention feature that extends above a plane formed by the circuit board after the board has been assembled to the housing. The assembly is assembled by first partially inserting one end of the board into a slot and pressing the other end of the board toward another slot, with a curved guide deflecting the board downward and into the other slot. When both ends of the circuit board are inserted into the slots, the deflection/retention feature is in contact with the board and flexes the board upward. As the board is pressed forward, a second curved guide engages the board and urges the board downward toward its final position. As the board clears the deflection/retention feature, it snaps into place. When the assembly is attached to the system that it will eventually be a part of (such as a computer system), tapered alignment posts on one connector are aligned with corresponding holes proximate the another connector, thereby simplifying the process of coupling electrical signals to the circuit board.

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